## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

JULIE A. GESCHWENDER et al.

Serial No.:   09/425,471

Filed:      October 22, 1999

For:     SYSTEM AND METHOD FOR DETECTING
         PURCHASING CARD FRAUD

Attorney Docket No.:   FDC 0136 PUS

Group Art Unit:      2164

Examiner:     F. Poinvil

## REPLY BRIEF UNDER 35 U.S.C. § 1.193

Box AF
Commissioner for Patents
United States Patent and Trademark Office
Washington, D.C.   20231

Sir:

This is in response to the Examiner's Answer mailed August 27, 2002. The Examiner's Answer was in response to the Appellant's appeal brief filed on June 4, 2002.

### (2) *Related Appeals and Interferences*

The Examiner indicated that the appeal brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal.

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8**

I hereby certify that this paper, including all enclosures referred to herein, is being deposited with the United States Postal Service as first-class mail, postage pre-paid, in an envelope addressed to: Box AF, Commissioner for Patents, United States Patent and Trademark Office, Washington, D.C.  20231 on:

| September 5, 2002 | James N. Kallis |  |
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The Appellant believes that the appeal brief does contain an explicit statement as to the lack of any related appeals and interferences. Page 2, lines 1-4 of the appeal brief states: "There are no other appeals or interferences known to the Applicant, the Applicant's legal representative, or the Assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal." As such, the Examiner's presumption in the Examiner's Answer that there are no related appeals and interferences is correct.

*(11) Response to Argument*

The claimed invention is patentable over any combination of Gopinathan and Schott as neither Gopinathan nor Schott teach or suggest, alone or in combination, comparing contact event information with <u>fraud information used in known frauds</u> to detect purchasing card fraud.

### 1. <u>Gopinathan</u>

The Examiner posited on page 4 of the Examiner's Answer that col. 27, line 48 to col. 28, line 24; and cols. 25-26 of Gopinathan teach the following. "The contact information are then compared with fraud information used in known frauds and stored in a database to determine if there is a fraud match between the contact event information and the fraud information." The Appellant respectfully disagrees that the cited sections of Gopinathan teach the step of comparing contact event information with <u>fraud information used in known frauds</u>.

The Appellant has again studied the disclosure of Gopinathan including the cited portions of col. 27, line 48 to col. 28, line 24 and cols. 25-26 and still believes that Gopinathan does not teach or suggest comparing information such as contact event information with <u>fraud information used in known frauds</u>. Initially, the Appellant notes that Gopinathan is generally directed to detecting fraudulent transactions using a predictive model to evaluate individual

customer accounts and identify potentially fraudulent transactions based on learned relationships among known variables. (See at least the Abstract and the Summary of the Invention of Gopinathan.)

Referring to col. 25 through col. 28, line 24 of Gopinathan, which includes the portions cited by the Examiner with respect to the comparing step, Gopinathan includes a transaction processor 802 for detecting fraud. The transaction processor 802 reads current transaction data and customer data from databases 805, 806. (See col. 26 of Gopinathan.) The current transaction data from database 805 includes information such as transaction dollar amount. (See col. 27 of Gopinathan.) The customer data from database 806 includes information from three sources: 1) general information on the customer (such as customer ZIP code); 2) data on all approved and declined transactions in a past time period; and 3) a profile record which describes the customer's transactional pattern over a past time period. (See col. 27, lines 1-47 of Gopinathan.) Profile database 806 is generated from past transaction and customer data before transaction processor 802 begins operating, and is updated after each transaction. (See col. 27, lines 48-63 of Gopinathan.)

Upon receiving a request for an authorization, the system of Gopinathan obtains data for the current transaction 1603 and well as profile data summarizing transactional patterns for the customer 1604. The system then applies this data to a stored neural network model 1605. The system then generates a fraud score which represents the likelihood of fraud for a transaction. The system then updates the customer profile database 806 with the new transaction data 1610. As such, Gopinathan is directed to obtaining a fraud score using profile data summarizing known transactional patterns for a customer. For instance, these transactional patterns may indicate that the customer typically dines at low cost establishments as opposed to high priced restaurants. Similarly, these transactional patterns may indicate that the customer buys in a certain geographical region as opposed to anywhere else. (See col. 27, line 64 through col. 28, line 15 of Gopinathan.) Col. 28, lines 16-24 of Gopinathan discloses a method of creating a profile record if there is no existing profile record for a customer.

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As such, the Appellant traverses the Examiner's position that col. 27, line 48 to col. 28, line 24; and cols. 25-26 of Gopinathan teach the step of comparing contact event information with fraud information used in known frauds. None of the cited portions of Gopinathan teach or suggest comparing information of any type with fraud information used in known frauds. The Appellant notes that the known transactional patterns of Gopinathan involve different information than fraud information used in known frauds (i.e., known fraudulent names, known fraudulent addresses, etc.). Generally, in contrast to the claimed invention of comparing information with fraud information used in known frauds, Gopinathan teaches the use of predictive modeling to perform pattern recognition and classification in order to isolate transactions having high probabilities of fraud. (See Field of the Invention; and col. 25 through col. 28, line 24 of Gopinathan.)

Accordingly, the Appellant believes that Gopinathan does not teach or suggest using fraud information used in known frauds to determine if there is a fraud match with contact event information. On page 4 of the Examiner's Answer, the Examiner remains unconvinced with the Appellant's assessment and noted that Gopinathan "uses customer's identification data in both an instant transaction and customer's profile"; "uses transaction amount which may exceed a limit or value, number of transactions in particular day and many related known variables presented in columns 7 to column 18." The Appellant does not disagree with such teachings of Gopinathan and agrees that such information is "known" and is "present". However, none of this information is fraud information used in known frauds.

## 2. Schott

The Examiner noted that page 5, 1st paragraph of Schott discusses detecting "fraudulent cardholder and merchant transaction patterns and relationships by comparing massive quantities of transaction data with hundreds of variables at the POS terminal.." The Appellant notes that the beginning of the 1st paragraph of page 5 of Schott states that "neural networks" detect "fraudulent cardholder . . . at the POS terminal." Because of the use of

"neural networks" this portion of Schott appears to be similar to the predictive modeling used by Gopinathan. In any event, Schott does not teach or suggest that the transaction data and the variables include <u>fraud information used in known frauds</u>.

Therefore, the claimed invention is patentable over any combination of Gopinathan and Schott as neither Gopinathan nor Schott teach or suggest, alone or in combination, comparing contact event information with <u>fraud information used in known frauds</u> to detect purchasing card fraud.

Respectfully submitted,

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